

Amendments to the Claims

The listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of claims

Claim 1: (CURRENTLY AMENDED) A system for determining if at least one gateway is at a pre-selected processing capacity monitoring usage of gateways responsible for managing one or more network elements, said system comprising:

said at least one gateway being responsible for managing one or more network elements, said at least one gateway communicatively coupled with one or more network elements;

said at least one gateway measuring an amount of maintaining processing usage information detailing the amount of usage of performed by said at least one gateway in managing said one or more network elements; and

a usage management system communicatively coupled to said at least one gateway, wherein said at least one gateway is operable to communicate said amount of processing performed usage information to said usage management system; and

a management system capable of determining if said at least one gateway is at said pre-selected processing capacity based on the measured said amount of processing performed.

Claim 2: (CURRENTLY AMENDED) The system of claim 1 wherein said amount of processing performed usage includes an amount of message handling gateway processing.

Claim 3: (CANCELLED)

Claim 4: (CURRENTLY AMENDED) The system of claim [[3]] 2 wherein said at least one gateway includes a Small Network Management Protocol (SNMP) gateway responsible for managing one or more SNMP network elements, and wherein said handling of messages amount of message handling includes handling of SNMP messages.

Claim 5: (CANCELLED)

Claim 6: (CURRENTLY AMENDED) The system of claim 1 wherein said at least one gateway includes code executable to track said measured amount of ~~usage of~~ processing performed by said at least one gateway.

Claim 7: (CURRENTLY AMENDED) The system of claim 6 wherein said code includes code implemented within an Application Program Interface (API) that includes functionality that can be invoked to increment and maintain a count of one or more types of processing performed by said at least one gateway.

Claim 8: (CANCELLED)

Claim 9: (CANCELLED)

Claim 10: (CANCELLED)

Claim 11: (CURRENTLY AMENDED) The system of claim 1 wherein said at least one gateway includes code executable to track ~~said amount~~ amounts of different types of processing usage of said at least one gateway by incrementing a count maintained for a particular one of said amounts of different types of processing, wherein said different types of processing includes handling of different types of messages from said one or more network elements.

Claim 12: (CANCELLED)

Claim 13: (CANCELLED)

Claim 14: (CURRENTLY AMENDED) The system of claim 1 wherein said usage management system is communicatively coupled to a plurality of gateways and is operable to poll said at least one gateway for said amount of processing to determine the measured amount of processing, and to compile the measured amount of processing into a file and provide said file to a recipient ~~usage information.~~

Claim 15: (CANCELLED)

Claim 16: (CANCELLED)

Claim 17: (CANCELLED)

Claim 18: (CANCELLED)

Claim 19: (CURRENTLY AMENDED) A method for ~~[[of]]~~ monitoring an amount of processing performed by usage of one or more gateways that are responsible for managing one or more network elements, said method comprising the steps of:

~~one or more gateways each tracking, by each of said one or more gateways, the amount of processing performed by said one or more gateways their respective usage in managing one or more network elements; and~~

~~said one or more gateways each communicating, by each of said one or more gateways, their respective amount of processing performed usage to a usage management system communicatively coupled to said one or more gateways; and~~

~~determining if each of said one or more gateways is at a pre-selected processing capacity based on the amount of processing performed by each of said one or more gateways.~~

Claim 20: (CANCELLED)

Claim 21: (CURRENTLY AMENDED) The method of claim ~~[[20]]~~ 19 wherein said ~~gateway~~ processing performed includes handling of messages received from said one or more network elements.

Claim 22: (CURRENTLY AMENDED) The method of claim 19 wherein said tracking step ~~further~~ comprises the steps of:

~~said one or more gateways each~~ executing software code by each of said one or more gateways to compute said amount of processing performed, usage said software code including code implemented within an Application Program Interface (API);

invoking, by said one or more gateways, said API to maintain a count of a type of processing when said type of processing occurs within said one or more gateway;

tracking an amount of different types of processing including handling of different types of messages from said one or more network elements; and

executing code, in each of said one or more gateways, to increment a count maintained for one of said different types of processing responsive to an occurrence of said one type of processing.

Claim 23: (CANCELLED)

Claim 24: (CANCELLED)

Claim 25: (CURRENTLY AMENDED) The method of claim 22 [[24]] wherein said invoking step ~~includes~~ comprises the step of:

passing a descriptor of said type of processing usage to said API.

Claim 26: (CANCELLED)

Claim 27: (CANCELLED)

Claim 28: (CANCELLED)

Claim 29: (CURRENTLY AMENDED) The method of claim 19 wherein said communicating step comprises the step of:

~~is responsive~~ responding to polling by said usage management system of said at least one or more gateways gateway for said amount of processing performed usage information ~~by said usage management system.~~

Claim 30: (CURRENTLY AMENDED) The method of claim 19 further comprising the step of:

~~said usage management system~~ electronically communicating, by said usage management system, received said amount of processing performed usage information to a recipient.

Claim 31: (CURRENTLY AMENDED) A gateway responsible for managing one or more network elements, said gateway comprising:

means for ~~processing~~ handling messages received from one or more network elements to which said gateway is communicatively coupled; [[and]]

means for tracking [[the]] an amount of processing performed by ~~usage of~~ said gateway in ~~processing~~ handling said messages received from said one or more network elements; and

means for determining if said at least one gateway is at a pre-selected processing capacity based on said measured amount of processing.

Claim 32: (CURRENTLY AMENDED) The gateway of claim 31 wherein [[the]] said processing handling means includes a processor and software code executable by said processor.

Claim 33: (CANCELLED)

Claim 34: (CURRENTLY AMENDED) The gateway of claim 31 wherein [[the]] said tracking means includes software code implemented within an Application Program Interface (API) executable to increment a first count to track said amount of processing performed;
usage

wherein said API includes functionality that can be invoked to maintain a second count of one or more types of processing;

wherein said software code, upon occurrence of a type of processing, invokes said functionality of said API to increment said second count for said one or more types of processing; and

wherein said software code invokes said functionality by passing a descriptor of said type of processing to said API, and wherein said API maintains a third count for said descriptor.

Claim 35: (CANCELLED)

Claim 36: (CANCELLED)

Claim 37: (CANCELLED)

Claim 38: (CANCELLED)

Claim 39: (CANCELLED)

Claim 40: (CANCELLED)

Claim 41: (CURRENTLY AMENDED) The gateway of claim 31 wherein the tracking means includes software code executable to track an amount of different types of processing usage;

wherein said software code increments a count maintained for a particular one of said different types of processing upon occurrence of said particular one type of processing;

wherein said different types of processing includes handling of different types of messages from said one or more network elements.

Claim 42: (CANCELLED)

Claim 43: (CANCELLED)

Claim 44: (CURRENTLY AMENDED) The gateway of claim 31 further comprising communicative coupling to a usage management system, wherein said gateway is operable to communicate said amount of processing performed ~~usage~~ to said usage management system.

Claim 45: (CANCELLED)

Claim 46: (CANCELLED)

Claim 47: (CANCELLED)

Claim 48: (CANCELLED)

Claim 49: (CANCELLED)

Claim 50: (CANCELLED)

Claim 51: (CANCELLED)

Claim 52: (CANCELLED)

Claim 53: (CANCELLED)

Claim 54: (CANCELLED)

Claim 55: (CURRENTLY AMENDED) The system of claim [[45]] 1 wherein said usage management system is implemented on a common platform with said ~~processor-based~~ management system.

Claim 56: (CANCELLED)

Claim 57: (CANCELLED)

Claim 58: (CANCELLED)

Claim 59: (CURRENTLY AMENDED) The method of claim 19 [[56]] wherein said ~~functionality is provided~~ method is implemented by software code executable within said at least one ~~gateway~~ or more gateways.

Claim 60: (CANCELLED)

Claim 61: (CANCELLED)

Claim 62: (CANCELLED)

Claim 63: (CANCELLED)

Claim 64: (CANCELLED)

Claim 65: (CURRENTLY AMENDED) The method of claim 19 [[63]] wherein said usage management system is communicatively coupled to a plurality of said one or more gateways, said method further comprising the step of:

said usage management system compiling usage information received from said plurality of said one or more gateways.

Claim 66: (ORIGINAL) The method of claim 65 further comprising the step of:

said usage management system electronically communicating compiled usage information to a recipient.

Claim 67: (CURRENTLY AMENDED) The method of claim 19 [[63]] further comprising:

said usage management system electronically communicating said amount of processing performed usage received from said ~~least one~~ or more gateways ~~gateway~~ to a recipient.

Claim 68: (CURRENTLY AMENDED) A system as in claim 1, wherein ~~[[the]]~~ said usage management system charges a user of said at least one gateway a fee based on said amount of processing performed ~~the communicated usage information~~.

Claim 69: (CURRENTLY AMENDED) A method as in claim 19, further comprising:
charging a user of a respective gateway of said one or more gateways a fee based on the ~~communicated~~ amount of processing performed by usage ~~of~~ the respective gateway.

Claim 70: (CURRENTLY AMENDED) A gateway as in claim 31, further comprising:
means for charging a user of said gateway a fee based on the tracked amount of processing performed by usage ~~of~~ the gateway.

Claim 71: (CANCELLED)